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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CUNNINGHAM, TERRY D

ART UNIT PAPER NUMBER

2816

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,976

Applicant(s)

IANNUCCI ET AL.

Examiner

Terry D. Cunningham

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to for the reasons discussed below in the enablement rejection under 35 U.S.C. § 112, first paragraph. This is due to the fact that it is not clear as to whether a dot connection is required in Figs. 1 and 5.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to adequately disclose how to make and use the invention. This is because it is not clear as to how Vref is generated. While it is not seen that the specification discusses Vref with respect to Fig. 5, the specification states, in lines 6-7 of page 3, concerning Vref of Fig. 1 that “a reference ‘bandgap’ voltage is obtained at the base of Q1 and Q2, such that the value is almost constant over temperature”. However, it is not seen possible that Vref can be generated because this line is only connected to the gates of Q1 and Q2 and to the inverting input

of comparator 4. With such connections, it is not seen that Vref can be generated. It appears perhaps that there should be a dot connection shown between line Vref and the collector of Q2, however, this is not clear.

Claims 8-14 are rejected under 35 U.S.C. § 112, first paragraph, as based on a disclosure which is not enabling. Structure corresponding to current mirror 6, bandgap reference circuit 8 and comparator 4 of Fig. 5 is deemed critical or essential to the practice of the invention, but is not included in the claim(s). An arrangement lacking this feature is not enabled by the disclosure since it cannot be understood from the specification how the circuit will operate without such. *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, there is no support in the specification for the “first circuit” being “to measure Vref”. Insofar as understood, the “first circuit” is Q1 and Q2 of Fig. 5. However, as discussed above, Q1 and Q2 are seen to be for generating “Vref”, not measuring such. In lines 8-9, there is no support found for the language therein. As seen from the specification, the “second current mirror” does not provide two “input” currents. Such provides a current I2 as an input to R3 and receives a current I2 as an input from element 10 (note, the left-most transistor of 7 is the input side). In lines 10-14, nowhere is the claim seen to recite where the “current gain” is provided.

Claims 2-7 are rejected for the reasons discussed above with claim 1.

In claim 8, it is not understood how the circuit can operate without the above discussed critical features. In lines 8-17, there is no function or purpose recited for the “compensation circuit”.

Claims 7-14 are rejected for the reasons discussed above with claim 8.

In claim 15, lines 12-13, there is no support found in the specification for the “second current mirror having first and second outputs”. As seen in Fig. 5 and understood from the specification, current mirror 7 has an output providing a current to the “sensing device” R3 and an input receiving a current from “compensation circuit” 10. In lines 14-15, there is no function or purpose recited for the “compensation circuit”. Additionally, there is no support found in the specification for the “compensation circuit having first and second inputs”. As seen in Fig. 5 and understood from the specification, “compensation circuit” 10 has an input receiving a current from “current mirror” 6 and an output providing a current to “current mirror” 7.

Claims 16-19 are rejected for the reasons discussed above with claim 15.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(e) the invention was described in-

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes

of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 8-10 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (USPN 5,961,215). Lee et al. disclose, in Fig. 1, a circuit comprising: "a sensing device (62)"; "an output comparator (64)"; "a reference circuit (56)"; "a first current mirror (36 and 60)"; "a second current mirror (34 and 38)"; and "a compensation circuit (40, 42, 50 and 52)", all connected and operating similarly as recited by Applicant.

Claims 2-7, 11-14 and 16-19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, first and second paragraphs, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terry Cunningham whose telephone number is 703-308-4872. The examiner can normally be reached on Monday-Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 703-308-4876. The fax phone numbers for Technology Center 2800 are 703-872-9318 for Before Final communications and 703-872-9319 for After Final communications. Please note, any faxed paper clearly stating **DRAFT** or **PROPOSED AMENDMENT** at the top will be forwarded directly to the Examiner. All others will be treated as a formal response and acted upon accordingly.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is 703-308-0956.

TC
July 14, 2003


Terry D. Cunningham
Primary Examiner
Art Unit 2816